

IN THE CLAIMS:

1. (currently amended) A device for measuring at least one item of physiological information through the skin of an individual, comprising:

a) ~~A flexible membrane designed to come into contact with the skin of the individual;~~

b) ~~A deformable space formed by the flexible membrane;~~

e) ~~A support card upon which at least one sensor is mounted, the card mounted to the membrane to close the space;~~

a) a flexible membrane designed to come in contact with the skin of an individual and fixed to a shell which is not designed to come in contact with the skin of the individual.

b) a support card upon which at least one sensor is mounted;

c) a deformable space formed by the flexible membrane and the support card mounted on the membrane; and

d) A flexible substance filling the space for transmitting to the at least one sensor at least one physical force to be undergone by the membrane.

2. (previously presented) The device of claim 1, further comprising that the membrane comprises means of fixing to the support.

3. (previously presented) The device of claim 2, further comprising that the said membrane defines at least one housing designed to receive the said support.

4. (previously presented) The device of claim 1, further comprising that the said membrane comprises means for fixing to a shell element of the said device.

5. (previously presented) The device of claim 4, further comprising that the said membrane defines at least one housing designed to receive the said shell element.

6. (previously presented) The device of claim 4, wherein the fixing means acts by clipping.

7. (previously presented) The device of claim 1, wherein the membrane has at least two areas with different rigidities.

8. (previously presented) The device of claim 7, wherein the membrane has a main contact area, designed to come in contact with the skin of the individual, and a peripheral area, extending over the contour of the main contact area.

9. (previously presented) The device of claim 7, wherein each of the areas fulfills a distinct function, belonging to the group comprising the measurement of forces, the transmission of forces and the rigidity of the shape of the membrane.

10. (previously presented) The device of claim 8, wherein the thickness of the peripheral area is less than the thickness of the main contact area.

11. (previously presented) The device of claim 7, wherein the membrane is obtained by overmoulding at least two materials with different rigidities.

12. (previously presented) The device of claim 1, wherein the membrane is produced from at least one hypoallergenic material.

13. (previously presented) The device of claim 1, wherein the membrane and the substance has an elastic character.

14. (previously presented) The device of claim 1, wherein the substance is a substantially non-compressible material.

15. (previously presented) The device of claim 1, wherein the substance is a dielectric material.

16. (previously presented) The device of claim 1, wherein the substance is a silicone gel.

17. (previously presented) The device of claim 1, wherein the sensor is at least one transducer for measuring at least one dynamic force, representing an arterial pressure wave or a relative movement.

18. (previously presented) The device of claim 1, wherein the sensor is at least one transducer for measuring at least one static force.

19. (previously presented) The device of claim 1, wherein the sensor is for the temperature of the said substance, representing the skin temperature of the user.

20. (previously presented) The device of claim 1, wherein the sensor is comprised from a group of a piezocapacitive sensor, a piezoresistive sensor or a contact switching at a predetermined pressure.

21. (previously presented) The device of claim 1, wherein the support card is a printed circuit carrying electronic components for effecting the amplification, treatment and processing of electrical signals and a decision relating to a state of the individual and means for supplying electrical energy and a communication interface.

22. (previously presented) The device of claim 1, further comprising a shell formed from a complementary a bottom shell element carrying the said membrane and a top shell element.

23. (previously presented) The device of claim 22, wherein the shell elements are connected together by screwing, clipping or adhesive bonding, also providing a seal for the substance.

24. (cancelled)

25. (cancelled).

26. (cancelled).

27. (previously presented) The device of claim 1, further comprising processing means on the support card for analysing at least one physical force transmitted by the substance in order to determine at least one of the items of information belonging to the group comprising:

- at least one item of blood pressure information;
- at least one item of information representing a pulse;
- at least one item of information representing an arterial tension;
- at least one item of information representing respiration;
- at least one item of information representing an activity of the said individual;
- at least one item of information representing a fall;
- at least one item of information representing a wave form;
- at least one item of information representing the skin temperature of the wearing area;
- at least one item of information as to whether the device is worn or not worn; and
- at least one item of information representing a change of one of the above items of information.

28. (cancelled)

29. (previously presented) A Method of manufacturing a device for measuring at least one item of physiological information comprising the following steps:

- mounting the necessary electronic components on a support;
- connecting together a membrane and the support, defining a deformable space; and
- injecting a substance in the said space.

30. (previously presented) The method of claim 28, wherein the substance is injected into the space in a liquid form.

31. (previously presented) The method of claim 28, wherein the support is inserted in at least one housing defined in the membrane.

32. (previously presented) The method of claim 28, wherein the membrane is fixed to a bottom shell element, by means of at least one housing provided for this purpose on the membrane.

33. (previously presented) The method of claim 28, further comprising a step of assembling a shell formed from a bottom shell element and a top shell element.

34. (previously presented) The method of claim 32, wherein the shell elements are connected together by screwing, clipping or adhesive bonding.